

## A Key to Males of the British Species of *Neocnemodon* Goffe (Dipt.: Syrphidae)

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In 1955 Delucchi and Pschorn-Walcher carried out a revision of the known European species of the hover-fly genus *Neocnemodon* Goffe 1944 (as *Cnemodon* Egger, 1865, preoccupied by Schoenherr, 1823). They disentangled a mass of misinterpretations of the various *Neocnemodon* species in the process. Some of the greatest confusion surrounded *Cnemodon vitripennis* Mg., the type of which has disappeared. They found two species confused under *vitripennis*, neither of which could be satisfactorily singled out as the original Meigen species. Because neither species had an alternative name definitely applicable to it, Delucchi and Pschorn-Walcher described both species as new, relegating *vitripennis* to the rank of *nomen dubium*. Collin (1960) noted the occurrence of both the Delucchi and Pschorn-Walcher species in Britain, but recognised only one of them (*N. pubescens*) as a new species, using the name *C. vitripennis* Mg. for the other (*N. dreifusiae*) and we follow this usage here, rather than leave Meigen's name in limbo and open to continued misinterpretation. Bankowska (1962) also follows Collin's example, though her illustrations suggest that her specimens of "vitripennis" Mg. were *N. pubescens* rather than *N. dreifusiae*.

In the current situation Coe's (1953) key to the species of *Neocnemodon* is usable, and when Collin recorded *N. pubescens* from the British Isles he gave insufficient information to distinguish the species from *N. vitripennis* (= *N. dreifusiae* D. & P.-W.). At present then, the *Neocnemodon* species occurring in the British Isles can only be identified using the key constructed by Delucchi and Pschorn-Walcher. A translation of that key is provided here, somewhat modified. All the species keyed by Delucchi and Pschorn-Walcher are included, since it seems likely that there are *Neocnemodon* species in the British Isles in addition to those we know of at the moment. A further species, *N. micans* (Doesburg), should perhaps be incorporated into the key, but has not been due to lack of information. This species was regarded as a synonym of *N. brevidens* (Egg.) by Delucchi and Pschorn-Walcher, but Van Doesburg (1958) contests this. If Van Doesburg is correct, *N. micans* would probably key out to *N. brevidens* in the following key, but would be distinguished from it by its violet colouration (*N. brevidens* is blackish) and black tibial hairs (whitish in *N. brevidens*).

This key is to the males only, since the females of all the species cannot be distinguished at present. Males of

*Neocnemodon* possess spurs in the middle and hind coxae and hind trochanters, a feature which distinguishes them from species in allied genera.

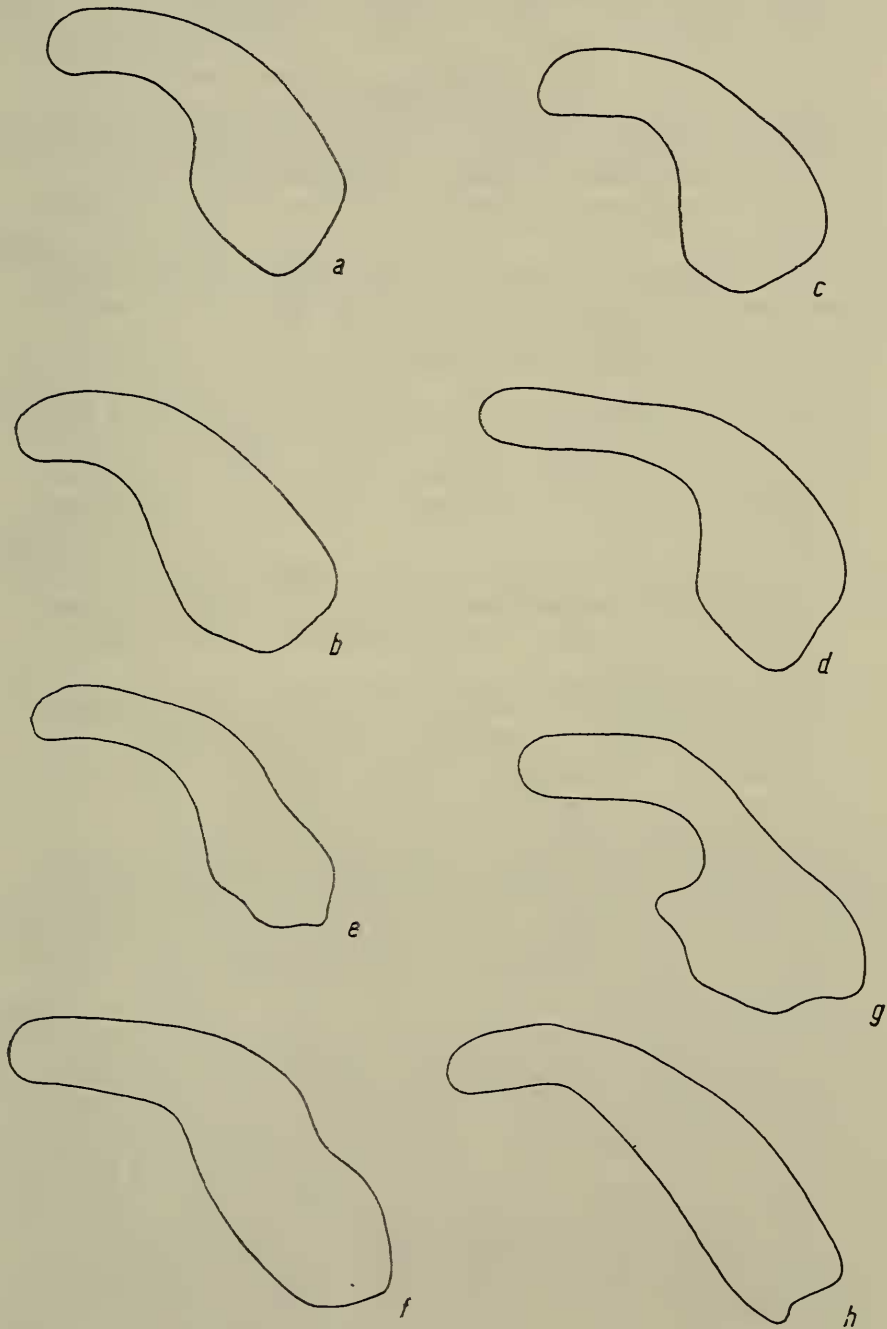


Fig. 1. *Neocnemodon* species: surstyli (styli, external forceps or claspers of other authors) of genitalia: a-c, *pubescens* from three different specimens; d, *N. vitripennis* (= *dreyfusiae*); e, *N. fulvimanus*; f, *N. latitarsis*; g, *N. brevidens*; h, *N. verrucula* (a-d original, e-h from Delucchi and Pschorn-Walcher, 1955).

### Key to the *Neocnemodon* Spp. Occurring in North-Western Europe

- 1 Third abdominal sternite with a definite median protuberance, which is either rounded or keel-like ..... 2
- Third abdominal sternite without protuberance ..... 3
- 2 Front basitarsus much expanded, so that it is obviously (ca. x 2) wider than succeeding segments; middle tibiae with a large swelling anteriorly, beyond the middle; second abdominal sternite covered in long hairs, basally; surstyli (terminal claspers) genitalia as in Fig. 1,f (known from scattered locations throughout the British Isles) ..... *latitarsis* (Egg.)
- Front basitarsus normal (unexpanded); middle tibiae moderately expanded after middle; second abdominal sternite with sparse, short hairs; surstyli as in Fig. 1,e (not known from the British Isles) ..... *fulvimanus* (Zett.)
- 3 Fourth abdominal sternite with a small tubercle just behind the middle; front basitarsus simple; surstyli long, abruptly angled distally (see Fig. 1,h) (from southern England to lowland Scotland in the British Isles) ..... *verrucula* (Coll.)
- Fourth abdominal sternite with no protuberance; front basitarsus with a visible excavation or flap-like, chitinous projection, or both; surstyli shorter, curved distally rather than angled ..... 4
- 4 Front basitarsus with a hollow on the inner side and middle basitarsus somewhat flattened; face predominantly black-haired; median vein of wing pilose for most of its length ..... 5
- Front basitarsus with a flap-like projection about half-way along and middle basitarsus notched behind; tubercle on middle tibiae with short black bristles; median vein of wing almost bare; face nearly all whitish haired; surstyli as in Fig. 1,g (not British; Central and Southern Europe) ..... *brevidens* (Egg.)
- 5 Surstyli as in Fig. 1,d, long and strongly curved, curvature beginning at about middle; hairs of thoracic dorsum predominantly whitish (Great Britain N. to Aberdeenshire in the British Isles ... *vitripennis* (Mg.) *sensu* Collin (1960) (= *dreyfusiae* D. & P.-W.)
- Surstyli as in Fig. 1,a-c, shorter and less curved, curvature beginning beyond middle; hairs of thoracic dorsum mostly black (known in the British Isles only from S. & E. England) ..... *pubescens* (D. & P.-W.)

*Neocnemodon* species are typically encountered as adults in woodland clearings, glades and rides, where they frequent the flowers of plants like *Euphorbia amygdaloides* L. and *Potentilla erecta* (L.) in May/June. The known larvae are apparently arboreal, feeding on Adelgids (see Delucchi and Pschorn-Walcher 1957). The four species recorded in the British

Isles are known from scattered localities throughout Great Britain, with the exception of *N. pubescens*, which has to date been recorded only from Cambridge and Suffolk. Dorset can be added to the range of this species as follows: Bere Woods (SY.87/94), ♂ 12.v.63, 2 ♂ 9.v.65, ♂ 20.v.67, ♀ 12.v.63 (Speight coll.). Only *Neocnemodon latitarsis* is known from Ireland (see Speight *et al.*, in press).

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## Some Subspecific and Infrasubspecific Names in *Pieris napi* L. (Lep.: Pieridae)

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The names of the yellow forms in British and Irish *Pieris napi* L. caused difficulty for years. Most of the more recent trouble dates from a note by J. A. Thompson (1952), or rather from E. A. Cockayne's editorial comments.

One group of forms can nowadays be got out of the way quickly: the rare sulphur- or lemon-yellow forms which occur in both sexes and genetically are recessive to wild type. In these yellow extends to the whole disc of the forewing underside. Although several alleles appear to be responsible, and the resulting phenotypes can usually be distinguished in fresh specimens, all are referable to *sulphurea* Schöyen (1885); the names *flava* Cockerell (1889), *hibernica* Schmidt (1913) and *citrona* Frohawk (1928) are synonyms.

Ochreous or tawny-yellow forms of varying depth, always confined to the female, in which the disc of the forewing underside almost invariably remains white, are not to be considered as aberrations. They occur all the time in parts of Ireland and Scotland and examples are easily bred from collected eggs. They are due to genes regularly present in the gene-pool of *P. napi britannica* Verity, as also in the gene-pools of north Scandinavian ssp. *adalwinda* Fruhstorfer and Alpine ssp.